AOL TECHNOLOGIES

FY1996 Business & Product Plan

July 1995

AOL Technologies

I. Goals 1995-1997

A. Be the innovation leader in multimedia online services.

B. Have the fastest time to market with the most active third-party evangelists in the industr

C. Provide the most reliable, lowest cost delivery system in the industry.

D. Leverage these competitive strengths into partnerships that extend the AOL franchise, enterprise, anc etc.

E. Attract and retain the "brightest and best" technical and management talent.

II. Mission

A. Support the AOL Services and Enterprise/Ventures divisions, joint venture partners and technology licensees with the multimedia online services industry's best technology, services, infrastructure and cost structure.

III. Product Planning and Delivery Process.

A. Strategic Framework

In order to deliver completed products (i.e., designed, developed, coded, tested, released, supported, billed, collected,...) to its wide range of customers (i.e., AOL Brand, AOL GNN, International, Apple,...), AOL Technologies needs a management system that provides management visibility of deliverables, progress measurements and issues.

The product planning and delivery process provides a mechanism for decision making and communications of what we should do, and when will it be available.

The question: "What should we do?" is answered and communicated through Market/Business Planning and Product Planning.

The question: "What are be developing and when will it be delivered?" is answered through Development Status Review, QA Status Review and Readiness Reviews.

B. Market/Business Planning

Frequency: 1/Quarter
Objective: Presentation of the marketing and business strategy of AOL Services
Format: First quarter of the FY is a overall presentation of FY plan, write marketing and business strategy for year. Other quarters will concentrate on specific "channels", e.g. Personal Finance or Sports, etc.. and include any changes to FY plan.
Attendees: SVP AOL Brand, VP Product Marketing and other Product Marketing staff as appropriate. AOL Technologies President and direct staff as appropriate.

C. Product Planning

Frequency: 1/Month
Objective: Define a product/release plan to meet overall objectives of the company
Format: Each month, select a specific area of "product", e.g. email, CHAT, WWW

and present by appropriate party. All requirements for development from marketing (America Online® Services, America Online® Enterprises), Technologies (development, operations, QA and market services), legal, accounting, etc. are review and prioritized. As a result of this prioritization, the product release plan will be established. The product release plan documents individual features and availability. Attendees: VP Technology Planning, VP's Development, VP Product Marketing and appropriate staff.

D. Development Status Review

Frequency 1/week
Objective: Review status of development projects as far as "TO: QA", so as to provide planning information for other AOL organizations.
Format: Exception based reporting against report of "in development" projects.
Attendees: Product Managers, development project managers and QA staff

E. QA Status Review

Frequency 1/week
Objective: Review status of projects in QA, so as to determine readiness for release to production or GM candidate.
Format: Exception based reporting against testing metrics, e.g. bugs opened closed, outstanding, test cases covered, code covered and hours of testing.
Attendees: Product managers and QA staff

F. Readiness Review

Frequency: 1/day or more as appropriate
Objective: Manage "end-game" of client releases, critical situations etc..
Format: 7-minute status, action meeting
Attendees: As appropriate

IV. Development

A. Strategic Framework

Development must deliver products and services to each of the AOL business units, AOL Brand, GNN Bra AOL International and technology licensees. In order to ensure that the development plan is the result o market-driven requirements from these constituencies, is linkable to marketing strategies, can be articulat to Partners and Analysts, is visible and inspectable and both gives and takes direction from VC/acquisition efforts, the development plan is structured as a series of Strategic Frameworks.

The Strategic Frameworks are: Client/Server Direction, Community and Personalization, Multimedia, Internet, Games, Tools, Joint Venture & Technology Partnerships, System and Service Security, and Thir Party Development.

B. Client/Server Direction

1. Goals

The principal goal of the AOL development process is to position AOL to deliver the most competitive client/server technology in the industry. This means full integration of Internet features and function wi AOL features and function *as well as* fully competitive stand-alone Internet capability.

Become the Web

The approach that AOL is taking to achieve the goal is to "Become the Web". The Windows AOL 2.5 client (shipping this month) includes a fully integrated HTML capability. This means that HTML web content can be freely mixed with proprietary FDO/Rainman content. Information providers can elect to publish in HTML on their own sites if they desire or information providers may elect to publish in HTML, but keep the information on AOL's server complex.

Those information providers who choose to publish in HTML may also elect to make that information available to other Internet browsers. The point is that we have opened up many new possibilities for existing and potential information providers.

Initially, the Mac AOL 2.6 client (also shipping this month) will have an HTML capability by virtue of a loosely integrated, stand-alone browser. Full integration awaits the release of Mac AOL version 3.0.

We intend to advance these goals by riding the wave of HTML 3.0/ Netscape extension to the HTML protocol. The Windows AOL client will be outfitted with HTML 3.0/Netscape extensions in the next client release which is currently scheduled for August. The Mac AOL 3.0 client will support HTML 3.0/Netscape extension when it is released in November. The HTML 3.0/Netscape extensions will remove some of the limitations to HTML 2.0, allowing for richer information presentations.

We plan to support all standards. In the process of "opening up", both the client and the server architecture have been adapted to allow for the easy adoption of any publishing standard. We have developed a "drop in" architecture (client and server) that provides a straight forward path to support any standard. There is no need for AOL to pick a single authoring environment or mark up language. This will be a constantly evolving and changing situation.

Microsoft has announced (but not published or shipped) it's own markup language which it calls "BlackBird Markup Language" or BBML. It is our plan to support BBML as one of our portfolio of information publishing standards. This will effectively remove BBML as a competitive advantage for Microsoft.

Favorite Places: The "URL-ization" of AOL

HTML is a standard way to create "pages" of information. It does not provide any inherent database scheme for storing collections of HTML pages. This is left to web site managers. Smaller sites have almost no organizational structure at all, storing pages as Unix files in a directory. Other sites employ traditional databases to provide a more formal organizational structure.

What's an URL?

An artificial hierarchy is created when pages are linked together using hyperlinks. These hyperlinks consist of "Uniform Resource Locators" or URLs. URLs provide a flexible way to reference information. URLs contain network address, file name, and other parameters that are used to determine the nature of the information or the purpose to which the information is to be put. URLs are used to access information as well as to describe navigational links.

AOL's Historical Limitations

On America Online, information is stored in a variety of places including Stratus- and unix-based databases. These databases are where message boards, newsgroups, mail, and articles are stored. America Online provides different access paths for different kinds of

information. Many of the addresses used on AOL are not "persistent", which means that the validity of an address cannot be insured across user sessions. Until very recently, this limitation made it impossible to have ubiquitous "get & go" capabilities, or sophisticated "drag & drop" navigational aids. Since web sites use "URLs", which are persistent addresses, these "get & go" capabilities are possible as well has navigational aids.

Once we implemented a "Favorite Places" scheme to allow AOL members to store their favorite web sites on the WWW, we saw a need to create a parallel mechanism which would allow members to store their favorite AOL areas in a similar fashion.

AOL's "URLMan"

The creation of the "URLMan" process on the AOL server made this possible. Now the AOL Client Favorite Places feature allows members to create collections of favorite places without regards for whether the content was created on AOL or on the WWW.

Within the next few weeks, virtually all of America Online will be addressable via the URL mechanism.

FDO/Rainman Enhancements

We cannot completely abandon FDO/Rainman for HTML in the near-term. There are many reasons why. Here are a few of the most important.

Superiority of FDO/Rainman in some key areas

FDO/Rainman is better than HTML in three key areas. First, FDO/Rainman is optimized for low bandwidth communications. By contrast, it is routine for the more attractive HTML-based WWW sites to transmit (and retransmit) huge GIF bitmap images as the primary information presentation. This approach works tolerably well at LAN speeds, but is barely usable over narrow bandwidth telephone lines, even with compression optimizations.

Second, Rainman and its related processes provide for automated processing of collections of documents. HTML only deals with single pages. This lack of collection control is a serious limitation to information providers who deal with large amounts of changing information.

Finally, FDO/Rainman provide for tightly controlled, more sophisticated screen presentation. Although HTML will eventually catch up (HTML 3.0 with Netscape extensions closes this gap considerably), currently it is possible FDO/Rainman to provide sophisticated displays with background graphics, animation, charting, etc. Exact layouts can be done with FDO/Rainman, whereas HTML provides essentially a "hinting" mechanism that results in a pretty homogenized look across web sites. Intelligent user interface gadgetry for interactively is native to FDO/Rainman, still quite awkward in HTML.

It is proving to be a competitive advantage to mix FDO and HTML capabilities. FDO provides us, for example, with a relatively easy way to add "community" to the WWW. By clicking on a hyperlink and bring up an AOL chat-room, it is easy to add community to the normally lonely web experience.

Ubiquitous Multimedia Content

This feature will allow members to create multimedia content (sometimes called "rich text") where today they can only enter plain text. We are calling this a "multimedia meta format". Capabilities anticipated include:

- font'ed/styled/sized text
- paste (or drag) picture in GIF, JPEG or ART formats
- pictures beside text (ala HTML 3.0)
- hyperlinked text
- hyperlinked pictures
- highly compressed sounds
- pictures with "image maps" (multiple links)

The following functions will be "energized" with this multimedia object:

- compose/read mail
- instant messages
- message boards/newsgroups
- chat

The multimedia enhancements are being developed to specifications defined by AOL (client and server) by Johnson-Grace. Currently scheduled for the Fall Windows 95 AOL client, the Fall Windows 3.1 client, and the November Mac 3.0 client. Server work (on a prioritized basis) will be required for implementation, with mail and message board/newsgroups scheduled to be done first.

Summary

We are operating on a very short list of principles:

- America Online should support all popular publishing standards. America Online should track the standards, incorporating (and proposing) improvements to the standards.
- By supporting the popular publishing standards, AOL defuses the information provider tools issue as a differentiator (e.g. Blackbird).
- AOL will support Blackbird, once it becomes available, as one in a portfolio of publishing standards available for both clients and servers.
- America Online's core information presentation must make use of the best of what is available (currently a hybrid of FDO/Rainman and HTML).
- Sensitivity to the installed base dictates that we employ a structured, overlapping conversion strategy as we migrate to new standards.
- Every member is an information provider. Members entertain each other. Therefore, we must find new ways to enrich the members' ability to express himself or herself online. Ubiquitous multimedia content addresses this.
- The best online content is most likely to come from entities that approach online as a new medium. Therefore, we must make it easy for "little guys" to publish on AOL. They are likely to be the "big guys" of the new medium as it matures.
- Existing information providers with paper-centric or other-media-centric content must be encouraged to approach online as a new medium.

2. Product Plan (This section describes major product directions; see remaining Strategic Framework areas for functional detail)

a. Windows
   (1.) Status
      (a.) Shipped AOL 2.5 with fully integrated World Wide Web browser capability
   (2.) Next Steps
      (a.) AOL 2.5/16 for Windows 95--8/95
      (b.) AOL 2.5/32 for Windows 95--Beta 8/95
      (c.) AOL 3.0/32 for Windows 95--Fall, 1995
      (d.) AOL 3.0/32 for Windows 3.1--One month later than AOL 3.0/32

b. Mac
   (1.) Status
      (a.) Shipped Mac 2.6 with partially integrated World Wide Web browser capability
   (2.) Next Steps
      (a.) Mac 3.0 with integrated WWW browser--Fall, 1995

c. Major tools
   (1.) Status
      (a.) Major enhancements to Rainman delivered with increasing IP approval
      (b.) Visual Rainman delivered to IP's specification
      (c.) Navi* products delivered with widespread acclaim
   (2.) Next Steps
      (a.) Rainman Conversion Tools -- Allows "older" information partners to convert from old Rainman to Rainman Plus. Tools in production, conversion taking place
      (b.) Rainman Language Enhancements (Includes hot links, image maps, animation, backgrounds, icons, templates) -- Ongoing, most major features by end of summer.
      (c.) Visual Form Edit (WYSIWYG form creation) -- First usable version by end of summer for Mac and Windows

d. Personal Publishing
   (1.) Status
      (a.) We have embarked upon a strategy that recognizes that members spend most of their online time consuming the content created by other members.
   (2.) Next Steps
      (a.) Personal Home Page/Personal Web Site .Members will be able to create "home pages" (actually a personal web site) using either templates available to all members (uploading pictures and sounds using FTP), or by using off-the-shelf HTML authoring packages. Server storage space will be available to members for their personal web sites. Launch in August.
      (b.) Visual HTML. Members will be able to "drag and drop" to create their personal home pages/personal web sites. This is the same as above, but with easier methods of "filling" the templates. Launch in August.

C. Community and Personalization

1. Goals

a. Be the industry leader in creating and delivering a sense of community and personalization
b. Attract and retain members because "you feel you belong at AOL"

c. Address consumers' major expressed desires for personalization:
(1.) Desire for self-expression, both conversational and published (i.e., "Every man is an author/publisher")
(2.) Desire for personally-tailored information (i.e., "information where I want it, when I want it and in the form I want it")
(3.) Desire for a personal, mini-online service

2. Product Plan
a. Instant Messaging
(1.) Status
(a.) Recently achieved dollar scalability
(b.) No recent functional improvements
(2.) Next Steps
(a.) Go To (i.e., after Locating a Member Online, allows you to directly Go To the Chat Room or Conference Room)--Fall
(b.) Gone (i.e., a text-based answering machine that let's you respond to an IM with a reply like "I'm gone" and then log the incoming message)--Fall
(c.) 3rd party Person-to-Person sound using Vocal Tech via Winsock--Fall
b. Chat
(1.) Status
(a.) Recently achieved dollar scalability
(b.) No recent functional improvements
(2.) Next Steps
(a.) Buddy Lists (i.e., shows the members of your "personalized circle/friends-and-family" that are on the service)--6/95
(b.) Personal Chat Room--8/95
(c.) Virtual Places (i.e., live communications for WWW which extends Chat to the WWW and makes WWW sites into online gathering places; based on Ubique)--Fall/Winter
(d.) Fantasy Chat (i.e., ability to create 3-dimensional worlds where members representing other users in that room and converse simultaneously with other users in that room; based on Knowledge Adventure Worlds)--Fall
c. Auditorium
(1.) Status
(a.) Capacity recently increased to 5,000 simultaneous; Maximum usage-to-date is 2,500
(2.) Next Steps
(a.) Broadcast Auditorium (i.e., delivery of real-time sound at low bandwidth using J-G real-time compression/ decompression, sophisticated buffering and server technology)--Fall/Winter
(b.) Stadium (i.e., the ability to announce "all hands to the auditorium" for an event of public interest...and to have the capacity to deliver)--Fall
d. E-mail
(1.) Status
(a.) Largest online and/or Internet mail system in the industry
(b.) Historically plagued with capacity issues
(c.) 5/18/95 installation (approximately) doubles capacity
(2.) Next Steps
(a.) Attached files to Internet e-mail--8/95
(b.) Delegation (i.e.," I'm not here but, if you wish, my mail will be forwarded to Steve Case for action: OK, Not OK")--7/95
(c.) Group Mail (aka Listserv)--8/95
(d.) Mass Mail--Fall
(e.) Power Mail--under development with a variety of third parties
e. Message Boards/Newsgroups
(1.) Status

(a.) Message Boards have been described as "the worst in the Industry" by a knowledgeable source
(b.) Newsgroups are among the best in the industry in terms of function, depth, performance and length of retention
(c.) Merger of Message Boards into Newsgroups is ongoing

(2.) Next Steps
(a.) Offline NewsReader--6/95
(b.) File Ferret (i.e., a reader for multimedia newsgroups which assembles, encodes/decodes and displays UUENCODE information -- this permits AOL access to the rich multimedia content on Newsgroups--in production
(c.) Parental Control for Newsgroups (very important because of the "adult-only" content on Newsgroups available through File Ferret)--6/95
use Internet?
(d.) Personal Newsgroups (i.e., create your own Newsgroups with cancellation contro and roster creation for privacy, aka, Friends-and-Family Newsgroups)--beginning 8/9

f. Personal Publishing
(1.) Status
(a.) No present offering
(2.) Next Steps
(a.) Personal Home Page: Phase 1 (i.e., personal WWW publisher plus Space Station on the Net)--7/95
(b.) Visual HTML (i.e., personal publishing tool for Web page creation utilizing AOL 2.5 built-in functions)
(c.) Ubiquitous Rich Text Object (i.e., the ability to put a Rich Text Object in even text entry field which will enable rich text, sound, and hyperlinks in Mail, Newsgroups, Message Boards and Rainman documents)--Fall
(d.) Personal Commercial Home Page: Phase 2 (i.e., the ability for a member to build their personal home page and get paid for other members' usage)--Fall

g. Agenting
(1.) Status
What's group?
(a.) Ongoing project to deliver tailored info to members. Searchable information includes anything that is inverted into PLS including Stocks and Newsgroups.
(b.) NewsAgent is in beta. (Keyword: NABeta)
(2.) Next Steps
(a.) News Agent (i.e., member constructs a profile of target info and target sources. This profile filters information and puts it into the member's mailbox)--6/95
(b.) Software Agent (i.e., the member constructs a profile of software topics; the member is notified when new versions, product info is available)--8/95
(c.) Profiling to Pagers (i.e., delivery of Alerts for Stock, e-mail, News to pagers)--Summer
(d.) Personalized Information Feeds (i.e., a window on the screen changes like a new ticker or the Times Square news wire so that the member can see the type of news they want)--Summer
(e.) Agenting applied to other info. sources- throughout year
(f.) What's new - a service to tell people, base on their interests what's new on AOL or logon - Winter

h. Navigation
(1.) Status
(a.) AOL 2.5 has
--Favorite Places (i.e., drag-'n-drop the Heart onto the Personal Filing Cabinet to create member's own navigation to AOL or the WWW favorite places)
--Personal Filing Cabinet (i.e., a desktop organizer or filing system that can be used file anything--documents, correspondence, downloads or favorite places)
(b.) AOL has been URLized (i.e., permits navigating AOL and the Web the same way)
(c.) API for both Personal Filing Cabinet and Favorite Places is published (i.e., thir parties can write applications to these services)

(2.) Next Steps
(a.) Up one level being investigated
(b.) 3D navigation being researched

D. Multimedia

1. Goals
a. Be the industry leader in DELIVERING multimedia content (e.g.: not just talking about it -- like the competition)
b. Deliver multimedia over the low bandwidth communication conduits that exist in the real world
c. Exploit AOL architecture to deliver multimedia over the high(er) bandwidth conduits that are coming in the future (e.g., ISDN and cable)
d. Deliver all elements of multimedia (except video) in 1995

2. Product Plan
a. Text
(1.) Status
(a.) Kinda dull--"Few-font-pony?"
(2.) Next Steps
(a.) Text compression to reduce ordinary ASCII text streams by up to a factor of -Fall
(b.) Portable fonts allowing authoring of text in virtually any font desired--Fall
(c.) Text and graphical overlays which allow assembling and laying out of many individual photographic, textual or graphical pieces on a single page--Fall
b. Still Photos
(1.) Status
(a.) AOL delivers fast photos over low bandwidth at approx 2-3x the speed of competition
(b.) AOL delivers all Web photographic content at 3-5x the speed of competition
(2.) Next Steps
(a.) Delivery of ALL image types (i.e., photographic, line drawings, graphic artwo greyscale pictures) with high quality and highest speed--5/95
c. Sound
(1.) Status
(a.) Limited .WAV sound (e.g., "You've got Mail!")
(2.) Next Steps
(a.) Widespread availability of .WAV files for Partners (e.g., the demo for the last Partner's Conference of "All this can be yours if you bow down and worship me")-5/95
NOTE: This is a place-holder for item 3 below....this is the logical equivalent of delivering bitmaps before we had compression for photos
(b.) MIDI for Partners (i.e., store-and-subsequently-play the music...works on the principle that music has mathematical repetitions and so can be economically stored)--5/95
(c.) AOL delivers sound at low bandwidth in real time using J-G real-time compression/decompression, sophisticated buffering and server work--Fall/Winter
NOTE: Potential applications include Radio Free AOL, Broadcast Auditorium, Guided Tour of AOL ("Try this....., try that.....)
(d.) Exploitation of Winsock for imported sounds/voice
NOTE 1: VocalTech is demo-able over the Winsock interface
NOTE 2: The availability of a sockets interface on AOL will deflate value of potential acquisitions of proprietary solutions
d. CD
(1.) Status

(a.) Loose integration (e.g., Car and Driver with automatic login to AOL and "hot key" to IP area from the CD) --Spring, 95
(b.) Dynamic update of CD data from AOL (e.g., 2Market)--Summer, 95

(2.) Next Steps
(a.) Virtual high bandwidth which can be involved by AOL (e.g., "Channel Disks")--Fall, 95
(b.) CD ROM Online (e.g., CD Jukebox...put any CD ROM online; download player to client, taking advantage of the AOL tools architecture; convert sound and images to J-G; eliminate video)--Fall

e. Sound-annotated Slide Shows
(1.) Status
(a.) Simple frame slide shows (e.g., Charlie Chaplin, moving eye in the AOL Preview Area or Beethoven at the last Partner's Conference)

(2.) Next Steps
(a.) Sequenced images with sound annotation (e.g., J-G demo of Kennedy speech or history of baseball)--Fall/Winter
NOTE: Potential applications include Partner Areas with infomercials, sequenced images with live events,....

f. Video
(1.) Status
(a.) Video server delivery to limited number of clients is demonstratable, but not deployable

(2.) Next Steps
(a.) Highly compressed video delivery with 15 frames per second over cable modem - Winter
NOTE: This requires a two-way cable modem. It delivers slow frame, highly-compressed video in a Rainman field which calls and displays a video file from a video server.

E. Internet

1. Goals
a. Capture and deliver the information resources of the Internet for the benefit of AOL customers:
--In the easiest-to-use paradigm
--With the best navigation
--With the highest speed, most reliable, most ubiquitous access
--With seamless integration of content, irrespective of the originating technology
--With the ability to conduct secure, reliable commerce
--With the ability to deliver turnkey Internet services, from connectivity to network management to Web site development and

b. Provide AOL customers the ability to personally exploit the Internet for:
--All the traditional applications (e.g., mail, IRC, newsgroups, games,....) plus
--Personal publishing in all media plus
--Personal commerce

c. Pre-empt the title of "Open Online Service"
--Seamlessly support all proprietary and open protocols (i.e., Rainman, Blackbird, HTML X.X, etc)
-- Aggressively position and market the role of AOL Winsock support as the path to Open Systems (e.g., "you want Netscape, you got Netscape", "you want Eudora, you got Eudora "you want VocalTech, you got VocalTech",...)

d. Create barriers-to-entry for other Internet services companies
--Exploit Winsock for openness
--Exert present cost advantages and economies of scale (e.g., Washington Post on Monday has a page full of Internet access providers....we need to blow them away now, not after they gain momentum...and our costs, coverage and quality of service should facilitate rapi gain of share...and if it doesn't, we should figure out why...)
--Pre-empt revenue and capital when it is possible...now!

e. Reach a strategic conclusion about the positioning of online services and the Internet:
--Are the conventional online services doomed by WWW?
--Or will the online services co-opt the resources of the Internet before the fragmented suppliers of Internet service get to critical mass?
--Should the Brand co-opt the Internet services industry by re-defining the playing field? Or should we have a separate, standalone offering to compete head-to-head on the playing field being defined by emerging competitors?

2. Product Plan

a. Internet connectivity

(1.) Status

(a.) AOL is presently the largest supplier of Internet services thru its existing Internet services (i.e., mail, WAIS/Gopher, newsgroups, WWW,...)
(b.) AOL can deliver Internet connectivity thru either TCP/IP (aka AOLnet and/or direct TCP/IP connection) or X.25 (aka the IP tunneling "parlor trick")
(c.) AOL delivers Internet connectivity thru over 500 POP's (aka Sprint plus AOLnet plus direct connections)
(d.) AOL should (does?) have the lowest connectivity cost and the widest geographical presence

(2.) Next Steps

(a.) Using a portfolio strategy, establish 125,000 highest-speed-in-the-industry ports by 12/31/95
(b.) Using ANS, market and deliver:
-- full end-to-end, secure Internet connectivity,
-- network management,
--security (aka Interlock),
--customer-premise (aka Interserv) and AOL-premise (aka Web Server Farms) Web site construction and management
(c.) Develop strategic approach to using the resources of ANS, WAIS, Terisa, Medior, Redgate and AOL provide turnkey, best-of-breed solutions for the customer

b. Mail

(1.) Status

(a.) AOL has the largest Internet mail system in the industry, presently working well
(b.) Historically plagued with capacity issues, presently $ scaleable
(c.) Presently lacks strategy for
--universal mail
--open mail systems
--Message Independent Mail Extensions (MIME)
NOTE: See below for tactical product plan

(2.) Next Steps

(a.) Attached files to Internet mail--8/95
(b.) Group mail (aka ListServ)--8/95
(c.) Universal mail (i.e., gateways to proprietary mail systems such as Collabra, Exchange,...)--Being delivered thru third parties
(d.) Open mail systems (i.e., xmh, Eudora, etc; server support for Post Office providers)--6/95 as part of the MegaWeb product
(e.) Message Independent Mail Extensions (i.e., the ability to deal with the emerging Internet standard for rich text)--"Attached files to Internet mail" is a subset of the MIME requirement (see item 1 for 8/95 delivery);International support requires this function for 10/95 delivery

c. FTP

(1.) Status

(a.) Exceptionally easy-to-use FTP area exists
(b.) Supports GET /PUT commands from/to the Internet
(c.) Public Internet services charge a lot for this service (e.g., $50 per month for 10mb public FTP sites)
(d.) This is a service that is ripe for pre-empting revenue form competitive Internet service providers

(2.) Next Steps

(a.) Personal publishing initiative(see below) will provide public FTP site for free (albeit only 10mb) for members--6/95

d. Telnet

(1.) Status

(a.) Telnet provides the ability to log onto remote machines and obtain services such as MOO's, MUD's and MUSH's

(b.) With Winsock, Telnet client can be downloaded from the service and installed on the AOL 2.5 client

(c.) No further development required

(2.) Next steps

(a.) Need strategy and marketing plan

e. Internet Relay Chat

(1.) Status

(a.) Ability to offer Winsock support in QA for AOL 2.5. This provides the capability to point at several IRC clients and offer IRC service

(b.) Presently running EFnet and Undernet IRC servers with no specific follow- on plans

(c.) No further development required

(2.) Next steps

(a.) Need strategy and plan

f. Newsgroups

(1.) Status

(a.) Presently running largest Newsgroup site in the world

(b.) AOL newsgroups are among the best in the industry in terms of function, depth, performance and length of retention

(2.) Next Steps

(a.) Offline NewsReader--6/95

(b.) File Ferret (i.e., a reader for multimedia newsgroups which assembles, encodes/decodes and displays UUENCODE information--this permits AOL access to the rich multimedia content on Newsgroups; see Keyword NGBeta or Newstest)- 6/95

(c.) Parental Control for Newsgroups (very important because of "adult only" content on Newsgroups available thru File Ferret)--6/95

(d.) Personal Newsgroups (i.e., create your own Newsgroups with cancel control and roster creation for privacy. aka Friends-and-Family Newsgroups)--beginning 8/95

(e.) MIME support (required for Internationalization)--10/95

g. Gopher/WAIS

(1.) Status

(a.) Presently in maintenance-mode; will be replaced by WWW

(2.) Next Steps

(b.) None planned

h. WWW

(1.) Status

(a.) Seamless integration of WWW with AOL-proprietary

b.) AOL proprietary technology (persistent caching, progressive rendering and compression servers) delivers best WWW performance in the industry

(2.) Next Steps

(a.) Marketing exploitation

i. Navigation

(1.) Status

(a.) AOL 2.5 has

--Favorite Places (i.e., drag-'n-drop the Heart onto the Personal Filing Cabinet to create member's own navigation to AOL or the WWW favorite places)

--Personal Filing Cabinet (i.e., a desktop organizer or filing system that can be used to file anything--documents, correspondence, downloads or favorite places)

(b.) AOL has been URLized (i.e., permits navigating AOL and the Web the same way)
(c.) API for both Personal Filing Cabinet and Favorite Places is published (i.e., third parties can write applications to these services)

(2.) Next Steps
(a.) Use GNN to provide best-of-breed navigational services

j. Personal Publishing
(1.) Status
(a.) No present offering
(2.) Next Steps
(a.) Personal Home Page: Phase 1 (i.e., personal WWW publisher plus Space Station on the Net)--6/95
(b.) Visual HTML (i.e., personal publishing tool for Web page creation utilizing AOL 2.5 built-in functions)
(c.) Ubiquitous Rich Text Object (i.e., the ability to put a Rich Text Object in every text entry field which will enable rich text, sound, and hyperlinks in Mail, Newsgroups, Message Boards and Rainman documents)--Fall
(d.) Personal Commercial Home Page: Phase 2 (i.e., the ability for a member to build their personal home page and get paid for other members' usage)--Fall

k. Transactions
(1.) Status
(a.) Microsoft and Visa are writing a new transactions protocol. Spec will be available 12 months after the Microsoft implementation
(2.) Next Steps
(a.) None presently planned

l. Security
(1.) Status
(a.) AOL has formed a consortium with Terisa to create open, accessible security standards
(2.) Next Steps
(a.) SSC in 3.0 Browser

m. New Stuff
(1.) Status
The following list are new topics but there is no tangible work underway on them at the moment.
--VocalTech (i.e., the use of the Internet for phone calls)
--Slow video
--Person-to-person and multiperson communication
--Radio broadcast over the Internet (NOTE: ANS recently won the contract for ABC Radio in competition with UUNET)
--New Sun OS (aka Hot Java)
--VRML

F. Games

1. Goals.
a. Be the industry leader in delivering the most exciting multiplayer Online games and enhance the sense of community for AOL members..
(1.) Support Game Companies to develop and bring Online, Multiplayer Games.
(2.) Develop Games API in partnership and full support of leading Game companies.
b. Support bringing all categories of games online
(1.) Card and Board
(2.) Turn based and Game Shows
(3.) Role Playing, Fantasy and Mystery
(4.) Play by mail
(5.) Twitch (shoot-em-up)
c. Develop, enhance and build four technologies in support of Game developers and companies.
(1.) TCP/IP Tunnel. Games API will use the AOL TCP Tunnel as the core, for interactive

multiplayer Games.

(2.) Games Manager - Functionality will be implemented and API's published to support common game functions e.g. chat, player matching, initiating game, tracking scores, game installation, etc.

(3.) Enhance CD to Online technology to support Games.

(4.) Low Latency technology.

d. Deliver all elements of games (except twitch - subject to further analysis) in 1995.

2. Product Plan

a. TCP/IP Tunnel

(1.) Status

(a.) Supported on WAOL 2.5.

(2.) Next Step

(b.) Planned feature for Mac 3.0.

b. Games Manager and API's

(1.) Status

(a.) Design in Progress.

(2.) Next Step

(a.) Complete design, and document Client and Host API's. - Fall

(b.) Iterate with feedback from Games Council (selected Game partners) - Fall

(c.) Implement and release SDK - 4Q95.

c. Enhance CD to Online technology to support Games. Using AOL MiniApp technology, CD base games can completely control user experience.

(1.) Status

(a.) Design in progress

(2.) Next Step

(a.) Complete design and implementation. - 1Q96.

d. Low Latency technology (to support Twitch games)

(1.) Status

(a.) No current solution.

(b.) Requirements received for low latency networks to support multiplayer twitch games(shoot em up variety).

(2.) Next Step

(a.) Analyze network characteristics and explore alternate cost effective technologies and designs, to support on AOL and/or alternate network (e.g. Catapult) - Fall

(b.) Develop a plan to support twitch games, based on alternate cost performance technologies. - Fall.

H. Tools

1. Goals

The online services business is in a period of transition, from a world of closed systems to one of open systems. All media go through a phase of "closed" or restricted access to technology, and then eventually move into a mode of everyone using the same basic systems for disseminating information and communications. It's just that in the online services world this transformation will take about 2 or 3 years, rather than centuries (books) ordecades (TV, radio). Once that happens, competition for IPs will revolve around who has the best tools for exploiting the platform, and of course marketing, positioning, community etc.

Today, Rainman and the Stratus-based tools and resources are the best tools for creating interactive, multimedia services. But, thousands of talented individuals and small companies around the world -- a critical mass of creativity and initiative -- are pushing so fast that it's not difficult to see that in months or at most year, Web-based technologies will surpass Rainman and Stratus-based technology.

2. Product Plan

Create an open, URLizable system to permit exploitation of either proprietary or open content.. Create an integrated browser which permits the seamless delivery of proprietary, functionally superior (aka Rainman)

content as well as open content to our membership .Continue development of proprietary tools to delive Best-of-Breed function Manage IP-driven development program to address 80% of the remaining issues (Visual Rainman+batch tools+...) Develop Best-of-Breed HTML publishing tools (aka Navi*)-Status:delive

I. Joint Venture and Technology Partnerships

1. Bertelsman Gmbh Online Service

The launch plan is described by various phases. The phases are:

- Network Burn-In/Pre-Field Trial Preparation, scheduled start date: 7/17/95, scheduled end date: 7/28/9
- Field Trial 1 (Alpha Test). Scheduled date: 7/17/95, scheduled end date: 7/28/95. (Note overlap with Network Burn-In)
- Field Trials 2-4 (Beta Test). Scheduled start date: 8/7/95, scheduled end date: 11/3/95
- Production Testing. Scheduled start date: 11/6/95, earliest scheduled end date: 11/15/95, latest schedul end date: 12/1/95
- Launch. Earliest scheduled date: 11/15/95 latest scheduled date: 12/1/95

2. Japan

Under negotiation but launch cannot be earlier than May, 1996

3.. Apple

J. System and Service Security

1. Goals
To protect America Online's data center and service assets.

2. Plan
- The plan detail is provided in the document America Online Security. The elements of the plan deal with:
- Physical infiltration of AOL networks (both dial-up and internet)
- Unauthorized access to AOL data centers (both physical and dial-up attacks)
- Unauthorized attacks to the AOL service (including hacker/cracker, virus and internet attacks)
- Encryption

K. Third Party Development

1. Goals

a. Be recognized world class leader, in the delivery and support of products, for software develo to create applications on AOL platforms.

b. Develop and release functionality, Application Program Interface, API's, documentation and sample code, separately and/or SDK's, to facilitate the development of a wide variety of applications on AOL. 1995 technologies and applications areas include :

(1.) MiniApp technology
(2.) Installer, registrations and launch technology
(3.) Windows Add - On Applications
(4.) Games API's.
(5.) Mac 3.0 API's .

c. Be responsive to 3rd Party developer needs. User Councils for each of the technologies will be formed and supported. Functional requirements for product enhancements and prioritization of implementation will be support based on member feedback.

2. Product Plans

a. Mini-app

(1.) Status.

(a.) MiniApp functionality and API's were prototyped and developed in 1995. Three customers were supported in custom development and support mode, integrating the MiniApp technology in their applications (e.g. Fog City, Car & Driver, and Medior).

(2.) Next Steps

(a.) The MiniApp technology will be extended with additional functionality, extensive testing for high quality, and developer level documentation--9/95

(b.) The product will be functionally enhanced and released on a short development cycle--Fall,95

(c.) Functional requirements for enhancements will be obtained from current the MiniApp User Council.

b. Installer, registrations and launch technology

(1.) Status

(a.) Installer, registration , launcher functionality and API's, were prototyped and developed in 1995. Three customers were supported in custom development and support mode to integrate these functions in their applications (Ziff Davis, Time Almanac, and Comptons)

(2.) Next Steps

(a.) Additional functionality will be added (e.g. launch to URL), extensive testing performed for high quality, and developer level documentation will be released--9/95

(b.) The product will be functionally enhanced on short development cycles--Fall, 1995

(c.) Functional requirements for enhancements will be obtained from the User Council.

c. Windows Add - On Applications

(1.) Status

(a.) No AOL support . However, 3rd party developers trap AOL requests to Window and 'add-on' their applications (e.g. Chat room extensions) with no support from AOL.

(2.) Next Steps

(a.) Develop, document and release 'request strings' to Windows AOL, requesting supported functionality (e.g. mail, stock quotes etc) for 3rd party applications--Fall 1995

(b.) Enhance and provide additional functionality --Fall, 1995

d. Games API's.

(1.) Status

(a.) None in 1995. Currently in design.

(2.) Next Step

(a.) Complete design, implement, document and release the Games API and functionality to support multiplayer games Online--Fall, 1995

(b.) Common functionality will be released e.g. chat, player matching, initiating games, tracking scores, games installation etc.--Fall, 1995

(c.) Release as SDK--Fall, 1995

e. Mac 3.0 API 's

(1.) Status

(a.) None in 1995.

(2.) Next Step

(b.) Develop and release in the same timeframe as Mac 3.0--1Q96

V. Operations

A. Goals and Drivers

The key drivers of the FY 1996 plan are:

- Simultaneous users growing from 60,000 to 155,000 to meet Marketing projections of nearly 6.5 million customers by June, 1996
- Switch from predominantly Sprintnet X.25 to AOLnet via TCP/IP will drive average data rates from 1500 bps to between 3000 to 5000 bps.
- Sharp ramp-ups for International growth will drive deployment of remote communications and data server clusters in Germany, UK, France and Japan in January through June, 1996
- Continued expansion of new facilities (Reston, Jacksonville, Tucson, northern California, Ogden) creates needs for both centralized (e.g., Purchasing) and decentralized (e.g., I/S and communications) support
- Capacity and functional expansions for Billing, Ordering, Account Management, Marketing Reporting to support new initiatives (e.g., advertising, transactions, commerce, demographic analyses,...) and partnerships (e.g., Apple, Bertelsmann, Japanese JV, GNN,...)

B. System Capacity and Technology Issues

Over the past year, system peak hour usage grew from 1.6% (i.e., the planning assumption) of the customer base to over 2% with an accompanying growth in simultaneous users from around 15,000 to 60,000. In this plan, we are assuming that the peak hour usage will grow to 2.4% of the customer base driven by large membership use of the new AOL technologies for World Wide Web and multimedia applications. The usage hours will grow from approximately 20,000,000 hours per month in June, 1995 to approximately 55,000,000 hours in June, 1996. See Figures 1 and 2.

These requirements are interlocked with development to ensure that the development projects necessary to support this growth are delivered in a timely manner. As we have asserted in the past, the AOL architecture is capable of supporting these demands. Today's system is, with two exceptions, capable of supporting the forecasted load for June, 1996. The two exceptions are the mail system and the message board system; the new mail and message board systems are schedule for launch in Fall, 1995.

1. Systems Infrastructure

Over the past year, there have been substantial changes to the infrastructure in AOL data centers. As described in last year's plan, we completed the Phase 2 Front-End processors which have eliminated our dependency on the proprietary Stratus link technology (StrataLink) and replaced it with off-the-shelf FDDI LAN technology. The new technology is scaleable, monitorable and non-proprietary so we have high confidence in its ability to meet our growth requirements.

In addition, we have re-architected our server complexes to create replicatable server PODs which permit us to scale to higher customer volumes by replicating PODs--in other words, we have (nearly) achieved "dollar scalability" in our applications architecture.

In addition, we have migrated an increasingly large number of services off the Stratus complex onto a variety of Unix and/or parallel processors. The AOL architecture permits each of these system solutions to be matched to the application requirement, e.g., Tandem parallel processors are deployed for Master File management, Auspex File Servers with RAID storage devices are deployed for Newsgroups, NT systems are used for graphics compression, HP-Sun-IBM unix servers are used for a variety of applications. This strategy will permit us to continue to deliver the most competitive cost-performance for AOL applications.

2. Systems Management

The operating environment at AOL is exceptionally complex. In this Plan, the Operations group will manage services in six data centers --Vienna, Reston, Germany, France, UK, Apple (second level support) and Japan. It will deliver 800# service to four telecenters--Vienna/Reston, Tucson, Jacksonville and (possibly) Ogden. These services will function 7 days a week and 24 hours a day (except the telecenters which operate 22 hours per day).

To manage this 7x24, worldwide system, the Operations group maintains a highly trained, specially skilled systems management team, headquartered in Vienna and Reston. The heart of the operations center is the Network Operations Center (NOC) which has instantaneous communication and real-time monitoring with all AOL servers and communication networks. The NOC uses a variety of systems management tools and applications centered around HP OpenView and based on the Simple Network Monitoring Protocol (SNMP) which is the universal standard for monitoring and managing modern networks.

In this Plan, the Systems Management group will continue development of tools and applications for managing the rapidly growing, extremely comples, worldwide AOL system and network complex.

3. Test Systems

The largest potential for reduction in the overall product development cycle is in improving the efficiennoy of the Test System complex. The Test Systems are the test versions of AOL which are used by QA, program developers, content devleopers. While a great deal of attention (including new management and new organizational structures) has been focussed on Test Systems, there remain issues which cause bottlenecked access to test systems to slow down development processes. We are creating separate test systems and management processes which will allow, in parallel:

- Testing of new clients against a stable (though not production) version of AOL
- Testing of multiple versions of AOL, each of which have separate, broad, *horizontal* changes
- Testing of new subsystems, where changes are independent (i.e., *vertical*)
- Final integration test, before promoting cnages to the AOL production system
- Independent testin by developers as they work on their own subsystems
- Testing of new content areas and icons by AOL brand content developers

C. Network Access to AOL

In this plan, AOL will migrate from a dependence on Sprint (who had approximately 85% of the traffic in June, 1995) to a dependence on AOLnet (which will have 65% of the traffic in June, 1996). In approximately February, 1996, AOLnet will carry the majority of AOL traffic. And, sometime in the Spring of 1996, AOLnet will be bigger than Sprintnet is today. See Figure 3.

The benefits of AOLnet are clear: better service (very noticable and very measureable) and lower costs. In this plan, Sprintnet cost per hour is approximately $.92 (down substantially from prior plans due to several price re-negotiations with Sprint) while the steady-state AOLnet cost per hour is approximately $.80. See Figure 4.

4. Facilities

To accomodate the growth in data center requirements, network control center requirements and personnel requirements, AOL has acquired additional space in Reston. This facility is presently being fitted out and data center operations have begun. Occupany will be staged over the remainder of 1995.

VI. Member Services

A. Goals

Member Services is a new organization which encompasses technical support, billing and sales. It was established in July, 1995 to achieve four goals:

- Become a competitive asset for AOL
- Enhance member loyalty
- Become the industry leader in technical, billing and sales service
- Meet the business commitments and service levels

- For the new Member Services organization, establish common systems infrastructure and measurements

In the FY 1995 business plan, the technical support orgaization committed several key business objectives involving service levels for June, 1995 (i.e., serve 95% of the custmer requests, handle 90% of the requests within 2 minutes), *both of which were met.* This provided the opportunity to analyse the relationship between service and retention. The results are that *the greater-than-120-day retention rate for customers that we talk to is 10.7 points better than those we do not talk to.* In other words, the retention rate is 62.7% for all customers, is 59.2% for those that we do not talk to and is 70.9% for those we do talk to. This indicates a substantial opportunity to use service as a asset for competitive differentiation and marketing productivity.

The Member Services organization has been in existence for less than a month at the time of this writing and so an integrated plan has not yet been established. The measurements have been made common (see Sections B.1. and C.1.) but the underlying business plans have not yet been completely integrated. The following sections describe the plans for the (previously separate) organizations against the (new) common measurement base--further work is underway to integrate the business plans.

To address the Goals, Member Services has four areas of strategic focus:
- Handle the volumes
- Enable "one member, one click" seamless service
- Build the team
- Support our partners

B. Technical Support

1. Handle the volumes
The metrics for the Technical Support plan, together with the Plan vs Actual performance for FY 1995 is displayed in Figure 5.
2. Enable "one member, one click" seamless service
The plan for achieving this objective is displayed in Figures 6 and 7.
3. Build the team
The plan for achieving this objective is displayed in Figure 8.
4. Support our partners
The plan for achieving this objecive is displayed in Figure 9.

C. Billing and Sales Support

1. Handle the volumes
The Billing and Sales Support plan, together with the Plan vs Actual performance in FY 1995 is displayed in Figure 10. Note that there is a major variation in the planning assumption for "% of Calls Handled Within x Minutes". The Billing and Support plan assumes that x = 20 seconds and the Technical Support plan assumes that x= 2 minutes. There are major strategic issues (sales productivity, customer satisfaction, resource investments) associated with this difference which will are presently being addressed. The Billing and Sales Support organization presently has a number of initiatives underway which address this objective:

- Introduction of new metrics and raising the bar on performance standards

In 1995, we introduced new metrics tomonitor facility productivity and establish performance benchmarks across allf unctional areas. With these new measurements and the management processes behind them, the call rate per hour will improve by 20% to 14.5 CPH and the average speed of answer will improve to 30 seconds for 75% of the daily call volume. With these productivity improvements, we expect to keep lost call rates at 5% or less.

- Sales outsourcing to provide cost effective and high quality auxiliary workforce.

Sales outsourcing has greatly contributed to the ability of the organization to handle high call volumes in 1995 and provides an excellent "best practices" benchmark. However, the costs are higher than the in-house service in Vienna and, perhaps, substantially higher than the cost of in-house service in Tucson and Jacksonville. The issue of outsourcing will be studied with a controlled program of testing costs, performance and quality.

- Message outsourcing--taped message vs live voice

The processing of customers who have cancelled has been outsourced with substantial productivity improvement over voice processing. The present plan is to outsouce sales messages, targetted cancel-resell and product selling with similar productivity expectations. This program has substantial marketing benefits. The out-source vs in-house will also be analysed here.

- New queue control process to improve call management

The Queue Management Control team will monitor incoming call volumes and dispatch them independently of the supervisory staff as call volume patterns begin to shift upward. Key initiatives of the group are to identify hourly call volume variance, monitor representative idle time, coordinate break and lunch schedules and capture reasons for hourly fluctuations. This is a major opportunity for exploiting common infrastructure with Technical Support's application software for dealing with these issues.

- New programming technology

In FY 96, the multiple CRIS screens will be migrated to one-screen information capability which will decrease the need to view multiple screens and also provide key customer information at a glance. In addition, we will also be testing the use of bar code technology to speed up administrative processes.

- Electronic mail for accelerated customer response

By streamlining the process, making it more directional and exploiting the e-mail automation capability in Technical Support, we will be able to process customers more rapidly and create an algorithm for processing numerical requests (e.g., usage credits). This will save time, lower handling expenses, improve customer response time and be more subscriber-friendly.

- Targetting collection activities

Exploiting the work done in FY 1995 with ECC, a collections supplier, to test and actively establish contact for each decline customer , we will increase our collection efforts and expand our non-payment calling base. In addition, we are planning to test a new payment authorization process and will be reviewing ways to modify our current termination process to save good customers.

2. Enable "one member, one click" seamless service

- Install common systems across Member Services

The objective of "one face to the customer" service critically depends on establishing common systems for call processing, call management, scheduling and measurements. At the moment, each organization has some systems that are common (e.g., Aspect call processing system) and some that are independent (e.g., manual scheduling analysis vs automated scheduling analysis, client-server support systems vs host-based support systems, etc). There is a major productivity andworkload-sharing opportunity associated with this objective

- Customer account tie-in

We will establish a means totie all customer communication channels together to minimize process redundancy. For example, e-mil, messaging and phone contacts presently have no information trailer and so we are not able to eliminate requests if responses have already been issues. This identification variable will also open cost reduction avenues forsubscribers t access personal billing data via voice response technology versus making a telephone call. Additional opportunities exist for access to current billing balances, credit card expiration data, subscription reactivations, customer flagging for payment issues and so on.

3. Build the team

- Improved training quality and efficiency

After substantial productivity improvements in FY 1995, we will introduce new refresher and advanced telemarketing skilltraining to further improve call control, relative stress, improve productivity and probing techniques. These skill are the baseline for the later introduction of selling technique training as we gear up to market other product lines and services.

4. Support our partners

- Exploit new revenue opportunities

In FY 1996, we will increase our profit center objectives by increasing the internal and outsource selling efforts substantially. In addition to Tour Guides, we will add other product selling efforts such as CD ROM. We plan on controlling the increased call handle time through new a selling techniques training program. The program will be designed to assist representatives develop probing and proactive low key selling techniques.

- Exploit Customer Research Group

With the dramatic increase to the membership base, it has become necessary to be more proactive in identifying and preventing fradulent behavior. We have completed the first phase of this program. In FY 1996, we will have an operational research group whichwilltake over e-mail inquiries sent to "Hawkears" viaelectronic mail from our TOS colleagues. The group will handle and follow-up on allsuspected fraud issues and develop preventive procedures.

VII. ANS

A. Goals

The ANS business environment is characterized by two forces: consumer-driven Internet growth and a maturing (but not matured) enterprise market for Internet access. The Internet market is moving to the consumer desktop, but dominant competitors are not yet established. The race for market share is just beginning with consumers, enterprises and Wall Street enamored with the Internet. The World Wide Web is driving enterprise growth and potentially dominant competitors are emerging. At the same time, the Virtual Private Data Network enterprise market is maturing due to aging X.25 technology, the catch-up of dial access technology and the shrinkage of Frame Relay margins.

The confluence of these forces creates a substantial market opportunity for ANS.

ANS is an *infrastructure integration company* which will integrate advanced technology as services with an enterprise market focus. The emphasis will be as an Internet access provider for the enterprise market with a mission-critical service orientation, integrated security, widespread geographical coverage, integrated WWW services and a (to be established) reputation for value-based, competitive pricing.

The ANS goals are:

1. Be vital to America Online

Deliver Big Dial on the schedule and costs described in the Operations Plan. The metrics for this goal are expressed in terms of modem deployment by quarter and cost per hour:

a. September, 1995: 20,500 modems deployed/$.97 per hour operating cost
b. December, 1995: 31,000 modems deployed/$.82 per hour operating cost
c. March, 1996: 46,000 deployed/$.73 per hour operating cost
d. June, 1996: 61,000 deployed/$.73 per hour operating cost

2. Build market share among enterprise industries

Develop and implement a strategy that propels ANS into the forefront of the Internet/enterprise market (i.e. larger and growing faster than UUNET and PSI) and thus positions ANS for a possible eventual spinoff.

3. Sustain profitability

This goal has three components: Base Plan (this is committed in the AOL FY 1996 Business Plan), Opportunity Plan 1 (additive to the Base Plan) for dial-up services to enterprises, and Opportunity Plan 2 (additive to the prior plans) for value-added services to enterprises

a. Achieve quarterly revenue and profit targets for Base Plan

The metrics are quarterly revenue and profit run rates (i.e., quarterly volumes multiplied by 4):

(1.) September, 1995: $28M/ $ .7M
(2.) December, 1995: $37M/ $ 1.2M
(3.) March, 1996: $48M/ $1.95M
(4.) June, 1996: $60M/ $ 3.6M

b. Achieve quarterly revenue and profit targets for Opportunity Plan 1

(1.) September, 1995: $ 2M/ $1.5M
(2.) December, 1995: $ 4M/ $ 3M
(3.) March, 1996: $ 8M/ $ 6M
(4.) June, 1996 $16M/ $12M

c. Achieve quarterly revenue and profit targets for Opportunity Plan 2

In cooperation with AOL Enterprises, develop marketing and sales programs for value-added products and services (i.e., products from Medior, WAIS, Redgate, Navisoft)

(1.) September, 1995: $ .5M
(2.) December, 1995 $1.0M
(3.) March, 1996: $2.0M
(4.) June, 1996: $4.0M

VII. Human Resources

A. Goals

The overarching human resource goal for AOL Technology is to be the employer of choice in the industry. We plan to achieve this goal in several ways. First, by living the commitment of "Respect for the Individual" in everything we do. Secondly, we will create a working environment and sets of integrated programs that support and foster the professional growth of employees in skills and competencies that meet the immediate and future needs of both the individual and AOL Technology.

B. Plan

During FY 1996, the focus of human resource planning and new initiatives will be in the following three areas:

- Staffing and Organizational Design
- Professional Development
- Compensation

These three areas represent the basic building blocks of a human resources strategy and by achieving the objectives laid out below will be a significant step forward in achieving the goal of being the most desirable employer in the industry - the company, all other things being equal - that prospective employees actively seek out and the one current employees are excited, enthusiastic and proud to be a part of.

Staffing and Organizational Design

Given the past and continued rapid growth of the Technology employee population and the changing priorities of the business necessary to meet market needs, it is key that we identify and put into place flexib

team structures and staffing levels that will effectively plan and execute while minimizing redundancies and maintaining realistic workloads for team members.

Also, given the volume of recruiting needed in FY 1996 and the very specialized skill sets often needed in th Technology organization, it is important to develop recruiting strategies that can quickly identify and secur the most appropriate talent in the most cost effective manner.

More specifically, in FY 1996 we plan to:
- Develop and implement a staffing plan with quarterly reviews to ensure that the plan remains aligned with any changes in the business plans and/or budgets
- Work with the HR Staffing group to develop and execute recruiting strategies for each department which will include master agreements with agencies, search firms, etc. to ensure a pool of qualified talent while reducing overall recruiting costs
- Review and continually evolve organizational structures as needed to achieve optimal mix and arrangements of skills to achieve needed objectives
- Re-engineer the Member Satisfaction processes and jobs to integrate billing & sales call center operations and technology support call center operations to optimize both member satisfaction and AOL's investme in customer support
- Develop job descriptions for all AOL Technology jobs

Professional Development

The continued development of technical, managerial, leadership and teaming skills among Technology employees is critical to the continued success of not only AOL but an integral component of individual job satisfaction. At an organizational level, it is important that we identify those competencies that are critica to the future success of the organization and then translate these competencies down to a skill level that ca be used in the development plans of all employees. This ensures that individual development is aligned with the needs of the organization and allows individuals to customize career paths based on their desire and abili to attain certain skill sets.

More specifically in FY 1996 we plan to:
- Develop a competency and skill model for AOL Technology
- Develop an Individual Development Program, which is integrated with the Performance Management Program, and develop Individual Development Plans (IDPs) for all Technology employees
- Develop a succession plan for key Technology jobs .

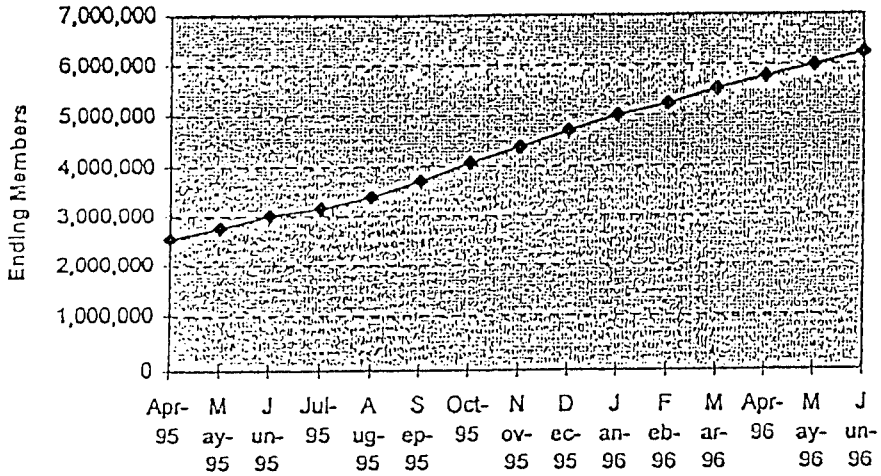
Compensation

A key component of employee satisfaction with their work experience is compensation. Consequently, it i critical that tools be developed that will allow managers to reward good performance, acknowledge and recognize excellence and have the information necessary to make fiscally sound compensation decisions. I is equally important for employees to understand their compensation and feel that they have been fairly an equitably treated. The primary objective of the compensation initiatives in FY 1996 is to develop and put into place the foundation of tools, information and processes for more effective compensation manageme

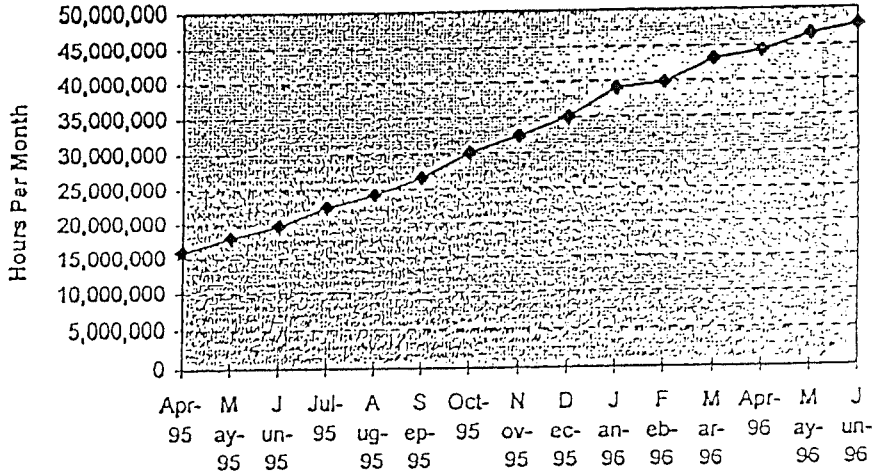
More specifically in FY 1996 we plan to:
- Working with the Director of Compensation, develop an annual incentive program(s) that will meet the unique needs of AOL technology
- Complete a comprehensive total cash compensation survey for AOL technology jobs
- Given external information and job descriptions, complete an in-depth analysis of AOL Technology compensation structure balancing internal equity issues with those of external competitiveness and identif action plans for individuals deemed to be problematic
- Develop a formal rewards and recognition program tailored to meet AOL Technology needs

AOL BRAND

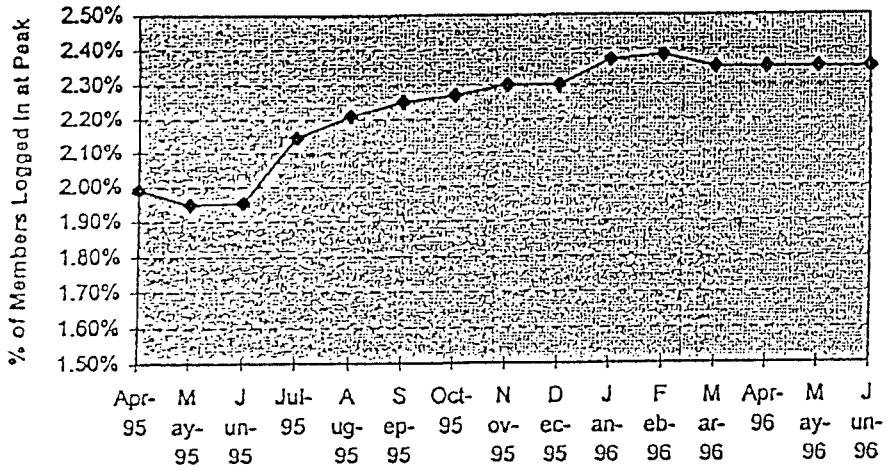
Membership Forecast



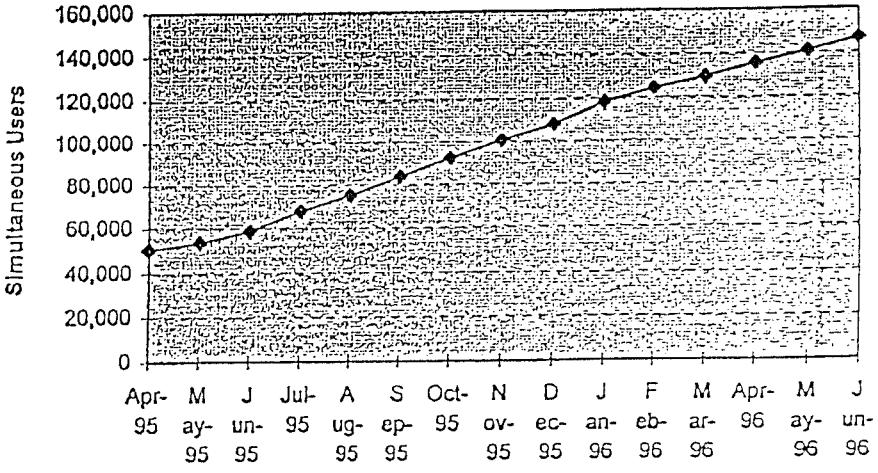
Usage Forecast



Usage at Peak

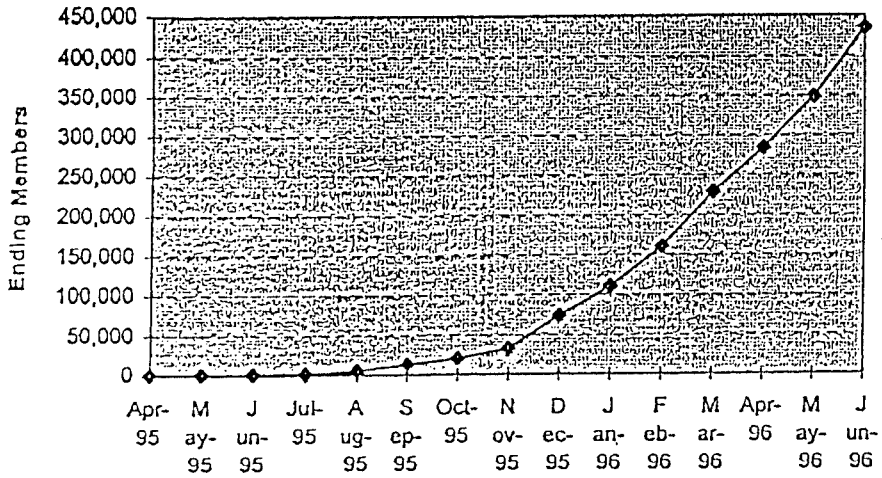


Simultaneous User Forecast

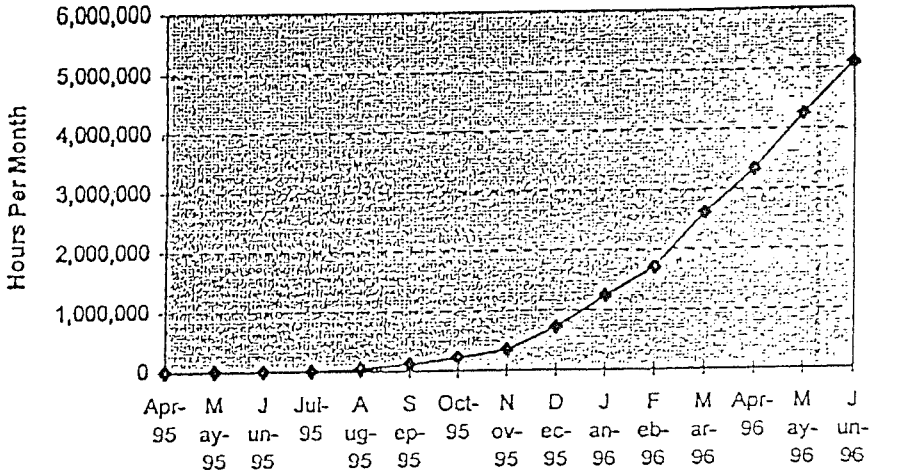


GNN BRAND

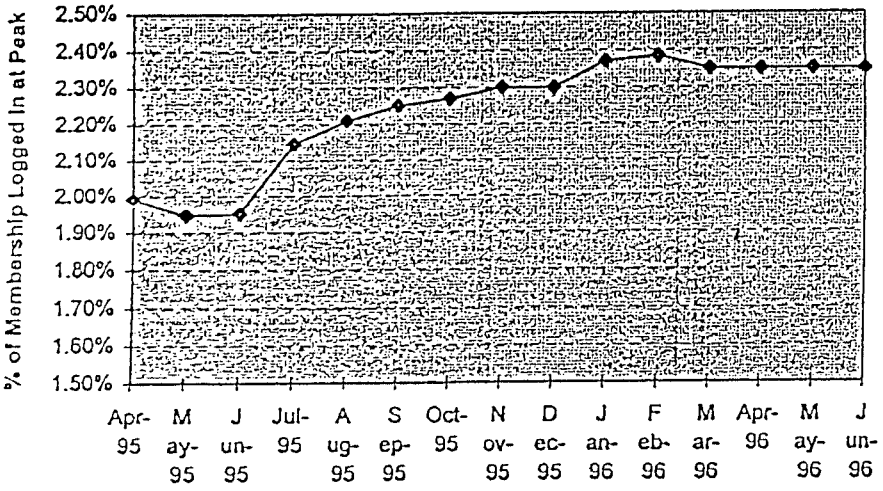
Membership Forecast



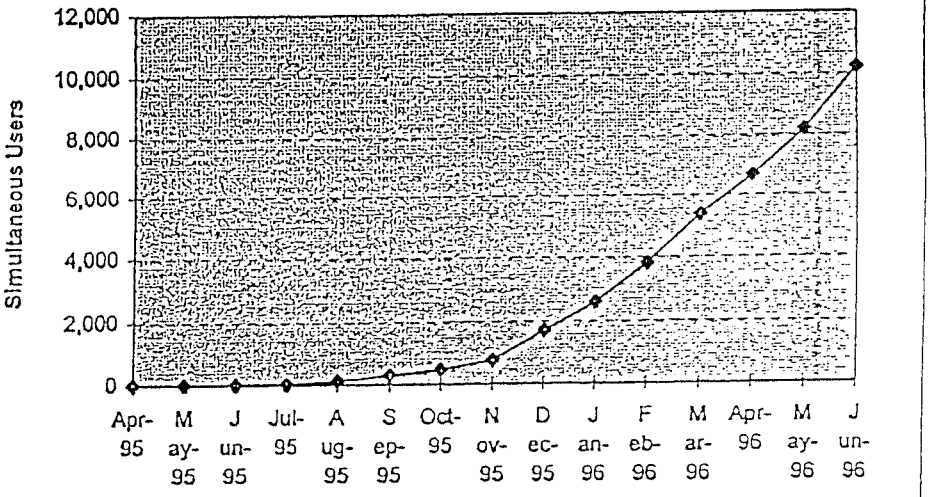
Usage Forecast

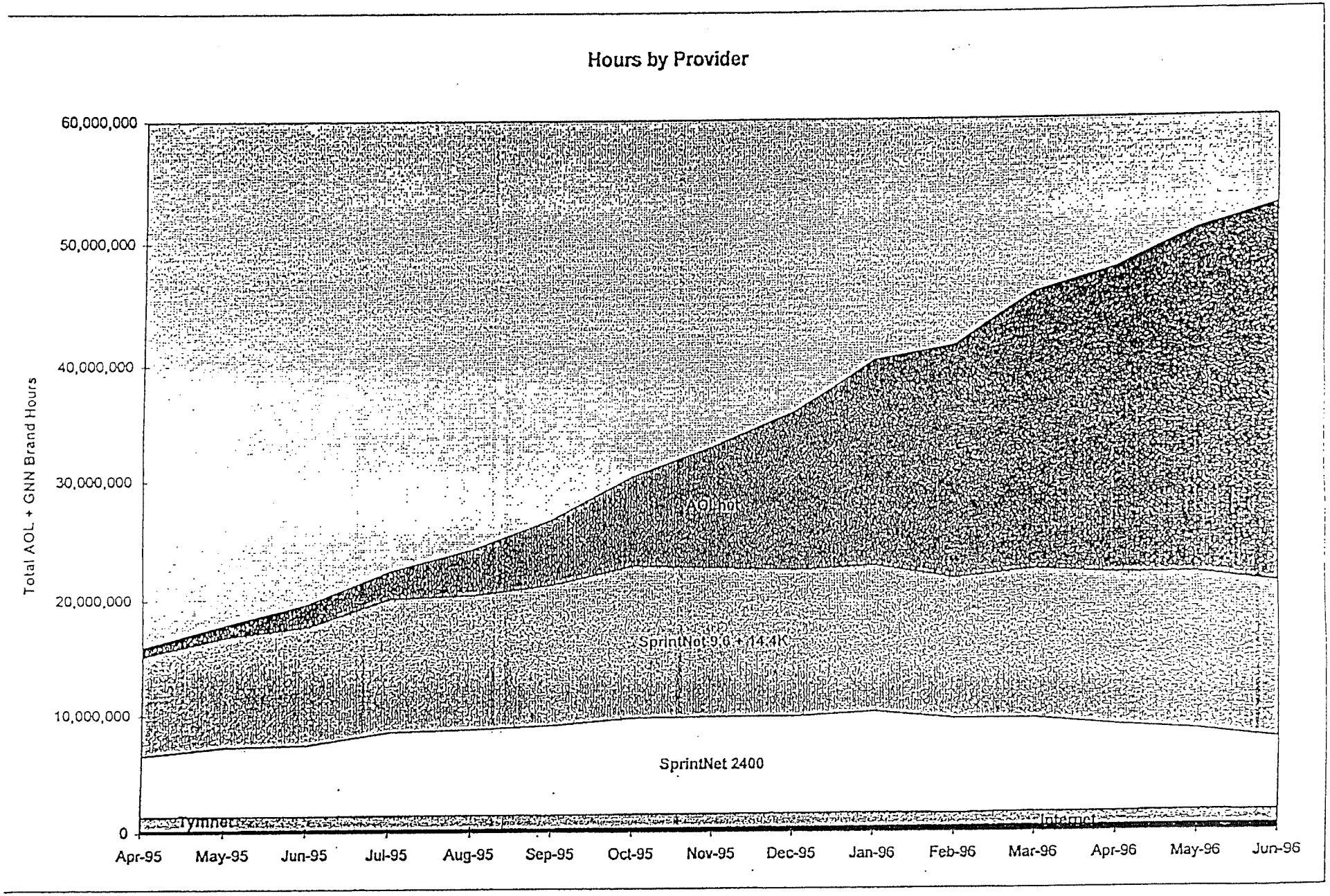


Usage at Peak

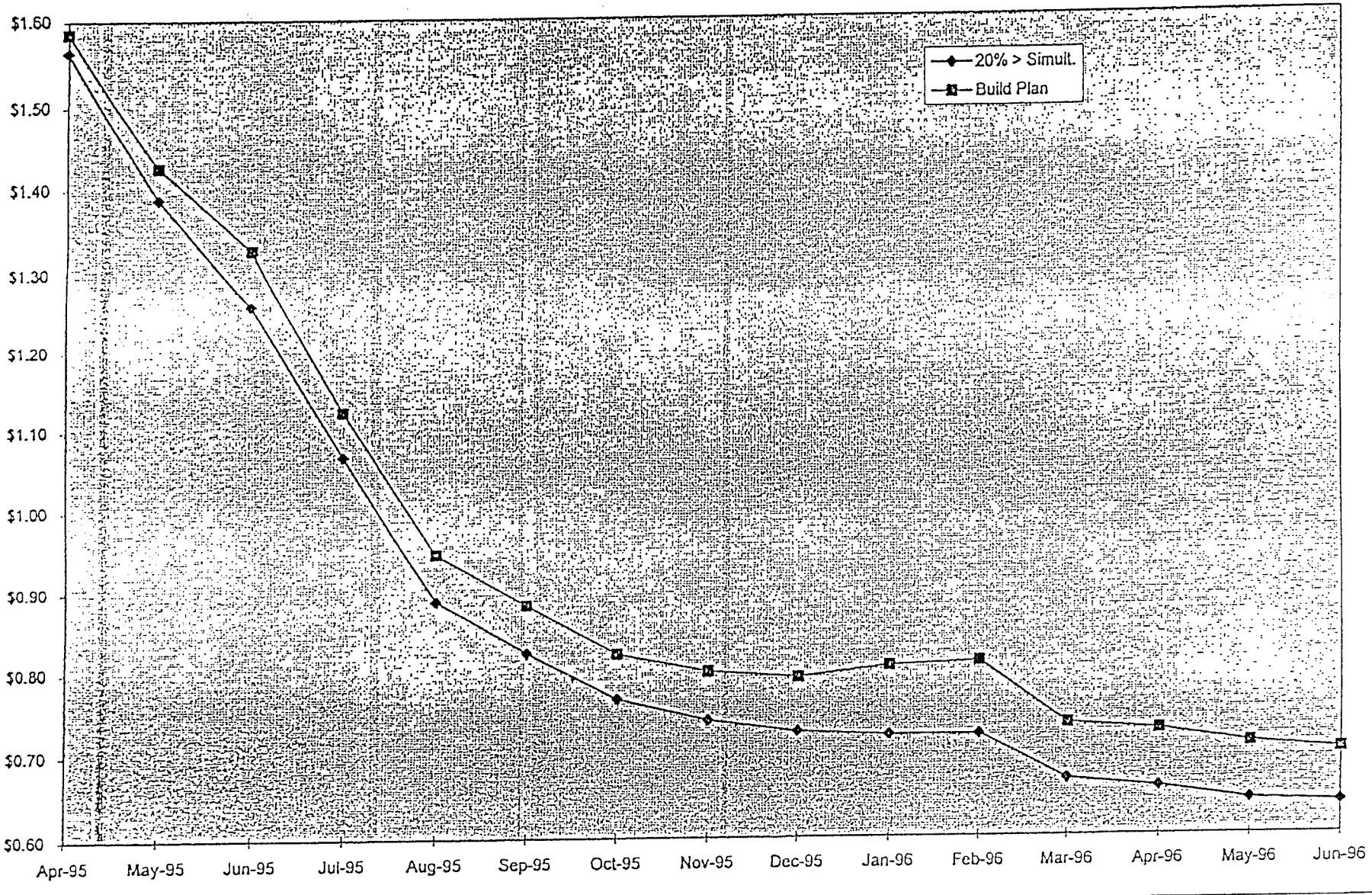


Simultaneous User Forecast




Hours by Provider
Total AOL + GNN Brand Hours
60,000,000
50,000,000
40,000,000
30,000,000
20,000,000
10,000,000
0
AOL hot
SprintNet 9.6 + 14.4K
SprintNet 2400
Tymnet
Internet
Apr-95
May-95
Jun-95
Jul-95
Aug-95
Sep-95
Oct-95
Nov-95
Dec-95
Jan-96
Feb-96
Mar-96
Apr-96
May-96
Jun-96

AOLnet Cost per hour



Technical Support

	FY95 Plan (6/95)	FY95 Actual (6/95)	FY96 Plan (6/96)
Ending Members (M)	2.1	3.0	6.7 (incl. GNN)
% of Requests Served	95%	97%	98%
% Handled w/i 2 min.s - Connectivity	90%	91%	85%
Cost per Member (direct cost)	$0.66	$0.62	$0.60

Enable "One Click, One Member" Client

Improvement Actions	Current Status	Before 180 Days	Before 360 Days
Technical Phone • Problems Resolved/Million Sessions	• W2.0 = 1850	• W2.5 = 1400	• M3.0 = 800
• Client Disk Responsiveness	• 30/60/90 Day Plan • 24-48 hours TAT • W2.5 Auto Test	• Mac 3.0 Auto Test	
• Sunset Usage of Old Clients	• W1.1 Slow Death	• W1.1 "Gone" • W2.0 Slow Death • Mac 2.1, 2.5 Slow Death	• W2.0 "Gone" • Mac 2.1, 2.5 "Gone"
• Diagnostic Tools	• W-AOLdiag Standalone	• Mac AOLdiag (S/A) • WIN95 AOLdiag (S/A)	• Client invoke AOL Diag
• Online Help	• Member On-line Support • BBS	• WEB On-line Support	• Linkage to Problem Database

"One Click, One Member"

Host

Improvement Actions	Current Status	Before 180 Days	Before 360 Days
HOST CHANGE RESPONSIVENESS	• Prioritization Meeting • Install Meeting	• Weekly Dev/QA Status Meeting • 30/60/90 Day Plan • QA Metrics	• Process Refinement
SYSTEM & STRESS TESTING	• NTN Trivia Simulator • Master File Simulator	• RMGs • News Groups • Sybase • Terminal Handlers • Client Scripts for Status Processes	• Stratus API
TEST ENVIRONMENT	• Stratus	• Reflect Operational System	• Maintain System Image
STAFFING	• Stratus • UNIX • Tandem	• Test Automation • Performance Projection • Configuration & Build Management	• Network Testing

Build the Team

Improvement Actions	Current Status	Before 180 Days	Before 360 Days
Tech Reps	• Prod. & Quality Incentive • Class Room Uptraining • Beta Support Training • career development • Team Days • Internships	• Customer SAT Training • Team Upgrade Training • Beta Support Training • Career Development	• Beta Support Training • CAREER DEVELOPMENT

Build the Team

Improvement Actions	Current Status	Before 180 Days	Before 360 Days
Supervisors	• Coaching • Management Training • Technical Uptraining	• Coaching • Management Training • Technical Uptraining	• Coaching • Management Training • Technical Uptraining
Technical Staff	• College: QA • Professional Hires	• College: + Pubs, Call Center Technology • Professional Hires • Technical & Project Management	• College Hires • Professional Hires • Technical & Project Management

Support Our Partners

Partner Actions	Current Status	Before 180 Days	Before 360 Days
ISC	• 30 Tech Reps • 15 Non-Tech Reps	• 78 Tech Reps • 38 Non-Tech Reps	• 140 Tech Reps • 68 Non-Tech Reps (outsourcing?)
AOL International	• Establishing relationship with JV and Bertlesmann (MOU) • On-site • Documentation • Training	• Service launched in Germany • MS Support to ramp-up in Germany • Support of field trial in UK • Increased MS support to Canada	• Support new call centers in other European countries • Possible field trial/support of Japan launch
OEM "Packin" Testing	• 2 Companies • 6 Models	• 50-60 Companies • 180 Models	• 90 Companies • 270 Models
OEM Modem 800#		• Review support requirements & partner opportunities	• 2 Mfg • 20-40 Reps

Billing & Sales

	FY95 Plan (6/95)	FY95 Actual (6/95)	FY96 Plan (6/96)
Ending Members (M)	2.1	3.0	6.7 (incl. GNN)
% of Requests Served	93%	86%	95%
% Handled w/i 20 sec.	50%	35%	75%
Cost per Member (direct cost)	$0.54	$0.51	$0.52